

ABSTRACT

A computer controlled power saving automatic zoned dryer for a printing press has a dryer head facing the substrate travel path, having a multiplicity of IR lamps connected individually or in groups to form a plurality of heating zones running longitudinally and each 5 extending laterally side by side across the substrate travel path. The radiant heat output of each heating zone is controlled separately by means of a control unit connected to a power supply. The control unit individually regulates output of the heating zones. Unneeded zones are turned off to reduce cost of power and conserve energy. A plurality of heat sensors spaced laterally across the substrate path measure the surface temperature of substrate heated areas corresponding to the heating zones being operated and maintain an automatic set point temperature. The temperature of each individual heated area can be regulated automatically by adjusting the output of its heating zone whereby printed substrates having a more even temperature profile are delivered. In an alternate manual mode any zone can be set independently to operate at any percentage of full available power from zero to 100%. Separate high velocity air scrubbers and additional air extraction are used to enhance the total drying effect of the zoned dryer assembly.

10
15